What is claimed is:

1. A washing machine comprising:

an outer tank for storing washing water;

an inner tank installed rotatably in the outer tank;

a load section composed of a motor for driving the inner tank, a water supply means for supplying the washing water, and a draining means for draining the washing water;

a microcomputer for controlling drive of the load section and reading an operation state of the load section;

a key input section for a user's input of various kinds of operation commands and setting of functions of the washing machine;

a display section for displaying the functions and operation state of the washing machine;

an interface section for sending/receiving wash-related data such as wash or dehydration to/from an external device; and

a memory for enabling data read/write and storing the program or data received from the external device.

2. The washing machine according to claim 1, wherein the memory is flash memory.

3. The washing machine according to claim 2, wherein the flash memory is composed of a plurality of sectors, one of the sectors stores a program for data communication with the external device

29

and a program for internal data communication in the washing machine, at least one of the sectors is an empty sector, and other sectors store washing course and control-related programs.

4. The washing machine according to claim 1, wherein the external device is a personal computer.

5. The washing machine according to claim 1, wherein the external device and the interface section perform data transmission/reception according to an RS-232C communication standard.

6. A washing machine comprising:

an outer tank for storing washing water;

an inner tank installed rotatably in the outer tank;

a load section composed of a motor for driving the inner tank, a water supply means for supplying the washing water, and a draining means for draining the washing water;

a microcomputer for controlling drive of the load section and reading an operation state of the load section;

a key input section for a user's input of various kinds of operation commands and setting of functions of the washing machine;

a display section for displaying the functions and operation state of the washing machine; and

a memory for enabling data read/write and storing a use history of the load section.

7. A method of changing system data in a washing machine that includes a memory, divided into a predetermined number of sectors, for enabling data read/write, an interface section for exchanging data with an external device, and a microcomputer for controlling

5   components of the washing machine so that a washing operation corresponding to an operation command of a user is performed, and storing data transmitted from the external device in the memory or changing the data stored in the memory, wherein programs for data communication with the external device or between the

10   components of the washing machine are stored in at least one of the memory and the microcomputer, the method comprising the steps of:

if a data-change command is externally or internally produced, executing the program for the data communication stored in the

15   microcomputer or in a first sector of the memory;

if the data to be changed is partial data of a second sector, the microcomputer copying all the data in the second sector into a third sector where no data is stored using the program for the data communication and deleting the data of the second sector;

20   the microcomputer receiving a download of the data for change through the interface section using the program for the data communication and writing the data in the second sector; and

the microcomputer copying the data that excludes the changed data among the data of the third sector into the second sector.

31

8. The method according to claim 7, wherein the data of the third sector is deleted during a data download performed after the data that excludes the changed data among the data of the third sector is copied into the second sector.

5   9. The method according to claim 7, further comprising the steps of:

if the data to be changed is the whole data of the second sector, the microcomputer copying all the data of the second sector into the third sector where no data is stored using the data communication and input/output-related programs, and 10 deleting the data of the second sector; and

the microcomputer receiving the download of the data for change through the interface section using the data communication and input/output-related programs, and writing the downloaded 15 data in the second sector.

10. The method as claimed in claim 7, further comprising the steps of:

if the data to be changed is the whole data of the second sector, the microcomputer deleting the data of the second sector 20 using the data communication and input/output-related programs; and

the microcomputer receiving the download of the data for change through the interface section using the data communication

32

and input/output-related programs, and writing the downloaded data in the second sector.

11. A method of changing system data in a washing machine that includes a memory, divided into a predetermined number of sectors,

5 for enabling data read/write, an interface section for exchanging data with an external device, and a microcomputer for controlling components of the washing machine so that a washing operation corresponding to an operation command of a user is performed, and storing data transmitted from the external device in the memory

10 or changing the data stored in the memory, wherein programs for data communication with the external device or between the components of the washing machine are stored in at least one of the memory and the microcomputer, the method comprising the steps of:

15 if a data-change command is externally or internally produced, executing the program for the data communication stored in the microcomputer or in a first sector of the memory;

if the data to be changed is partial data of a second sector, the microcomputer copying all the data in the second sector into

20 a third sector where no data is stored using the program for the data communication and deleting the data of the second sector;

the microcomputer receiving a download of the data for change through the interface section using the program for the data communication;

33

judging whether the download has been normally performed and if it is judged that the download has been normally performed, writing the downloaded data in the second sector and copying the data that excludes the changed data among the data of the third

5   sector into the second sector; and

if it is judged that the download has not been normally performed, restoring the stored data of the third sector into the second sector.

12. The method as claimed in claim 11, further comprising the
10   step of if it is judged that the download has not been normally performed, displaying a message for informing a download failure through the display section.

13. The method as claimed in claim 11, further comprising the step of if it is judged that the download has not been normally
15   performed, ignoring a user's key input during the step of restoring the stored data of the third sector into the second sector.

14. The method according to claim 11, wherein the data of the third sector is deleted during a data download performed after
20   the data that excludes the changed data among the data of the third sector is copied into the second sector.

15. The method according to claim 11, further comprising the steps of:

if the data to be changed is the whole data of the second sector, the microcomputer copying all the data of the second sector into the third sector where no data is stored using the program for the data communication, and deleting the data of the second sector; and

the microcomputer receiving the download of the data for change through the interface section using the program for the data communication, and writing the downloaded data in the second sector.

16. A method of changing system data in a washing machine that includes a memory, divided into a predetermined number of sectors, for enabling data read/write, an interface section for exchanging data with an external device, and a microcomputer for controlling components of the washing machine so that a washing operation corresponding to an operation command of a user is performed, and storing data transmitted from the external device in the memory or changing the data stored in the memory, wherein programs for data communication with the external device or between the components of the washing machine are stored in at least one of the memory and the microcomputer, the method comprising the steps of:

if a data-change command is externally or internally produced, executing the program for the data communication stored in the microcomputer or in a first sector of the memory;

35

if the data to be changed is partial data of a second sector, the microcomputer copying all the data in the second sector into a third sector where no data is stored using the program for the data communication and deleting the data of the second sector;

5   the microcomputer receiving a download of the data for change through the interface section using the program for the data communication;

judging whether the download has been normally performed and if it is judged that the download has been normally performed,

10   writing the downloaded data in the second sector and copying the data that excludes the changed data among the data of the third sector into the second sector;

if it is judged that the download has not been normally performed, judging whether a user selects re-execution of the

15   download or restore to the previous data;

if it is judged that the user selects the re-execution of the download, re-executing the data download; and

if it is judged that the user selects the restore to the previous data, restoring the storage data of the third sector to

20   the second sector.

17. The method according to claim 16, further comprising the steps of:

if the data to be changed is the whole data of the second sector, the microcomputer copying all the data of the second

36

sector into the third sector where no data is stored using the

program for the data communication, and deleting the data of the

second sector; and

the microcomputer receiving the download of the data for

5   change through the interface section using the program for the

data communication, and writing the downloaded data in the second

sector.

18. The method according to claim 16, further comprising the

step of if the download has not been normally performed,

10   displaying a message for informing a download failure, and then

displaying a message for selecting a download re-execution or a

data restoration.

19. The method according to claim 16, further comprising the

step of if the user selects a download re-execution or a data

15   restoration, ignoring the user's key input during performing a

corresponding work.

20. The method according to claim 16, further comprising the

step of if the user selects a download re-execution or a data

restoration, displaying a state of a corresponding work.

20   21. The method according to claim 16, further comprising the

step of if the data restoration is completed, displaying that the

washing process is performed by the previous program.

22. The method according to claim 16, wherein the data of the

third sector is deleted during a data download performed after

37

the data that excludes the changed data among the data of the third sector is copied into the second sector.

23. A method of changing system data in a washing machine that includes a memory, divided into a predetermined number of sectors, for enabling data read/write, an interface section for exchanging data with an external device, and a microcomputer for controlling components of the washing machine so that a washing operation corresponding to an operation command of a user is performed, and storing data transmitted from the external device in the memory or changing the data stored in the memory, wherein programs for data communication with the external device or between the components of the washing machine are stored in at least one of the memory and the microcomputer, the method comprising the steps of:

if a data-change command is externally or internally produced, executing the program for the data communication stored in the microcomputer or in a first sector of the memory;

if the data to be changed is partial data of a second sector, the microcomputer copying all the data in the second sector into a third sector where no data is stored using the program for the data communication and deleting the data of the second sector;

the microcomputer receiving a download of the data for change through the interface section using the program for the data communication;

38

judging whether the download has been normally performed and if it is judged that the download has been normally performed, writing the downloaded data in the second sector and copying the data that excludes the changed data among the data of the third

5   sector into the second sector;

if it is judged that the download has not been normally performed, judging whether a user selects a re-execution of the download or a restoration to the previous data;

if it is judged that the user selects the re-execution of the

10 download, re-executing the data download;

if it is judged that the user selects the restoration to the previous data, restoring the storage data of the third sector into the second sector; and

displaying a version of the program changed through the

15 download.

24. The method according to claim 23, further comprising the steps of:

if the data to be changed is the whole data of the second sector, the microcomputer copying all the data of the second

20 sector into the third sector where no data is stored using the program for the data communication, and deleting the data of the second sector; and

the microcomputer receiving the download of the data for change through the interface section using the program for the

data communication, and writing the downloaded data in the second sector.

25. The method according to claim 23, further comprising the step of if the download has not been normally performed, displaying a message for informing a download failure, and then displaying a message for selecting a download re-execution or a data restoration.

26. The method according to claim 23, further comprising the step of if the user selects a download re-execution or a data restoration, ignoring the user's key input during performing a corresponding work.

27. The method according to claim 23, further comprising the step of if the user selects a download re-execution or a data restoration, displaying a state of a corresponding work.

28. The method according to claim 23, further comprising the step of if the data restoration is completed, displaying that the washing process is performed by the previous program.

29. The method according to claim 23, wherein the data of the third sector is deleted during a data download performed after the data that excludes the changed data among the data of the third sector is copied into the second sector.

30. The method according to claim 23, wherein the step of displaying the version of the program changed through the download is a step of displaying the version of the corresponding

40

program throughout the display of an initial washing state is displayed after the change of the program.

31. The method according to claim 23, wherein the step of displaying the version of the program changed through the download is a step of displaying the version of the corresponding program throughout the display of all washing states after the change of the program.

32. The method according to claim 23, wherein the step of displaying the version of the program changed through the download is a step of displaying the version of the corresponding program when the user inputs a specified key.

33. The method according to claim 32, wherein the specified key is a version confirmation key or combination of at least one function key.